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8MM FILM IN EDUCATION--ITS EMERGING ROLE.

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A BROCHURE HAS BEEN PREPARED WHICH COMPLEMENTS THE MOTION PICTURE "8MM FILM IN EDUCATION--ITS EMERGING ROLE," PRODUCED BY THE PROJECT ON EDUCATIONAL COMMUNICATION OF THE HORACE MANN-LINCOLN INSTITUTE. THE PURPOSE OF THIS BROCHURE IS TO ACKNOWLEDGE THE CONTRIBUTIONS OF ALL WHO AIDED IN MAKING THE FILM, AND TO PROVIDE MORE DETAIL ABOUT THE EXAMPLES SHOWN IN THE DOCUMENTARY SEQUENCES. PRIOR TO THE PRODUCTION OF THE FILM, MEMBERS OF THE PROJECT TRAVELED THROUGHOUT THE UNITED STATES AND TALKED WITH EDUCATORS WHO WERE WORKING WITH 8-MM FILM. THE MAJOR BODY OF THE FILM SHOWS EXAMPLES SELECTED TO PROVIDE ILLUSTRATIONS OF THE WIDEST POSSIBLE RANGES OF INNOVATION IN THE USE OF 8-MM FILM FOR EDUCATIONAL PURPOSES. THE BROCHURE DESCRIBES--(1) SEQUENCES FROM THE FILM, (2) DRILL IN LIPREADING FOR THE ACOUSTICALLY HANDICAPPED CHILD, (3) LABORATORY SESSIONS OF AN AUDIOVISUAL COURSE, (4) DRILL EXERCISES FOR THE DEAF, (5) LECTURES AND DEMONSTRATIONS MADE AVAILABLE IN THE SCHOOL LIBRARY, (6) SCIENTIFIC EXPERIMENTS FOR ELEMENTARY PUPILS, (7) INDEPENDENT STUDY FOR COLLEGE STUDENTS, (8) "FEEDBACK" ON PROGRESS IN CONDUCTING AN ORCHESTRA, (9) STUDY OF FRENCH, AND (10) USE OF 8-MM FILM BY 5-YEAR-OLD CHILDREN FROM CULTURALLY DEPRIVED AREAS. (JC)

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U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE  
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8mm FILM IN EDUCATION: ITS EMERGING ROLE

Brochure to accompany the film of the above name, produced under contract #OE-5-16-005, Title VII, U.S. Office of Education

Produced by the Project in Educational Communication  
Louis Forsdale, Principal Investigator

Horace Mann-Lincoln Institute  
Teachers College  
Columbia University

  
~~Submitted for approval to Ronald L. Linder, Project Officer~~  
U.S. Office of Education, on May 18, 1966

This brochure complements the motion picture 8mm Film in Education: Its Emerging Role, produced by the Project in Educational Communication of the Horace Mann-Lincoln Institute of School Experimentation, Teachers College, Columbia University, under contract with the U.S. Office of Education. Its purpose is two-fold: to acknowledge in print the contributions of all those who aided in the making of the film; and to provide more detail about the work shown in each of the documentary sequences so that the viewer may better understand the larger educational context in which 8mm film is being used.

### Introduction

For the past six years, the Project in Educational Communication has devoted its effort to exploring the educational potential of 8mm film. In November, 1964, the U.S. Office of Education agreed to fund the production of a motion picture which would show a sampling of present activity in the field, and thereby suggest both the current state and future promise of the role of 8mm film in education.

The first phase of the contract provided for members of the Project to travel throughout the United States to talk with educators who were working with 8mm film. It also provided funds for the Project to establish experimental film utilization programs; these programs took place at the Agnes Russell School and Grant Day Care Center in New York City and at Park School in Ossining, New York.

The second phase was the production of the film itself, subcontracted to American Film Productions of New York. The major -- documentary -- body of the film shows examples selected to provide the widest possible range of illustration of innovation in the use of 8mm film for educational purposes.

A short introductory still picture sequence presents accessibility as an important criterion for the evaluation of educational media. The increasing accessibility of film as a medium for education is then swiftly sketched, using as context and contrast that most accessible educational medium, print.

The following text is largely drawn from statements prepared by the educators primarily responsible for the application of 8mm film shown in the documentary section of the film; they are presented in the order in which they appear in the film.

PRESCOTT SCHOOL, LINCOLN, NEBRASKA

ROBERT E. STEPP, BUREAU OF AUDIOVISUAL INSTRUCTION, UNIVERSITY OF NEBRASKA

### FILM SEQUENCE

A young acoustically-handicapped child is shown at school, at first working with her teacher and then independently with an 8mm cartridge projector. Here intensive drill in lip reading is made available on film, which frees the classroom teacher to work with other pupils.

The work at Prescott School is part of a feasibility study of a learning laboratory for hard of hearing children. The study was directed by Robert Stepp of the University of Nebraska Bureau of Audiovisual Instruction, under contract with the U.S. Office of Education. Professor Stepp writes,

"At Prescott Elementary School, a public school of Lincoln, Nebraska, which provides for the instruction of acoustically handicapped children, an independent study program in speechreading was conducted, using 8mm sound, color, cartridge-load, loop films. The ten children in the study were from five to eight years of age, had hearing losses that ranged from hard-of-hearing to profoundly deaf, and were classified from low average to superior mentally when compared with other acoustically handicapped children.

"Mrs. Fern Inge, a classroom teacher, arranged her room so that it contained four distinct work-study areas: individual desks for seat work; chairs arranged in a semi-circle for group presentation and discussion; an individual auditory training table; and the learning laboratory with the 8mm projectors. The laboratory itself consisted of three booths, each containing a Fairchild Mark IV 8mm projector with an amplified sound system feeding into the headphones. Although speechreading is basically a visual skill, sound was considered to be essential to the plan in order to capitalize on whatever residual hearing the child might have. Twenty-five

experimental speechreading films were produced for this project.

"The teacher would assign the child to view one or more cartridges in the same way that she might assign one or more exercises in a workbook. While that child worked independently, the teacher was free to give her personal attention to the needs of another child. Speechreading, like most skills, requires practice, and it can be taught more quickly if the child need not wait for those moments of face-to-face communication for his practice. 8mm films offer the opportunity to simulate this important piece of deaf education."

ARIZONA STATE UNIVERSITY, TEMPE, ARIZONA

VERNON S. GERLACH, ASSOCIATE PROFESSOR OF EDUCATION

### FILM SEQUENCE

College students are seen in a laboratory session of an audiovisual skills course designed for maximal self instruction. Silent 8mm loop films provide demonstration models for students to follow as they practice specific skills.

Professor Gerlach, whose research interest is in new learning techniques, writes, "Technological developments invariably suggest new solutions to old problems. At Arizona State University this phenomenon has manifested itself in the development of a new kind of laboratory for the basic audiovisual education course. The technological development is the 8mm loop (cartridged) film and projector. The problem is the development of a self-instructional system for teaching skills involved in A-V equipment operation and basic materials production."

The teaching of a manual skill benefits from detailed and repeated viewing of a "perfect performance". A program of short silent loop films,  $\frac{1}{2}$  to 4 minutes in length, which demonstrate graphic techniques and equipment operation, has been introduced in the basic audiovisual course at Arizona State. Most of the films about A-V techniques are purchased, while those about equipment operation are generally produced locally.

Here in the self-instructional laboratory, students in small groups practice their skills in imitation of the loop demonstration -- in this case, the use of a felt-tipped marking pen is shown. The loops are an integral part of the program of instruction, and they are seen as often as necessary. The students are guided by a dittoed manual for each topic studied, while the teacher -- in the film, Mr. Willard Card -- moves about the classroom, giving assistance where it is needed.

Since this course comprises two hours of lecture and three hours of laboratory weekly, and enrollment size results in ten laboratory sections, the self-instructional films and accompanying manuals are playing an important part in solving an acute staffing problem, as well as increasing the effectiveness and efficiency of each student's learning.

SAN FERNANDO VALLEY STATE COLLEGE, NORTHRIDGE, CALIFORNIA

RAY L. JONES, PROGRAM DIRECTOR  
LEADERSHIP TRAINING PROGRAM IN THE AREA OF THE DEAF

### FILM SEQUENCE

A deaf person is learning to read the speech device which will enable him to use a telephone. The 8mm loop provides drill in the codes and techniques he must learn.

During the past two years the Leadership Training Program in the Area of the Deaf at San Fernando Valley State College has used 8mm cartridge films to help teach deaf persons. One of the film programs instructs in the use of the telephone through the aid of a recently developed "speech indicator" device; another teaches "fingerspelling" to persons preparing for work with deaf persons.

Dr. Ray L. Jones, Project Director, writes, "The film developed for use in an adult education Telephone Communication Class for Deaf Persons provides visual instruction in the operation of the speech indicator device. This portable device picks up sounds from the earpiece of the ordinary telephone and translates these into a movement of the indicator needle, which can be seen by the deaf person. The film provides the practice necessary to enable the deaf person to recognize the typical patterns of dial tone, busy signal, ringing signal, and talking, and to recognize code replies to simple questions. Mr. Gerald Burstein is seen first practicing -- with an 8mm cartridge film -- reading the speech indicator device, and then placing a telephone call with the device.

"The use of 8mm cartridge film has also provided a useful tool to supplement instruction provided by the teachers in classes in Manual Communication. The manual language used by our deaf citizens is, after all, a foreign language to the students in these classes. Since it is

an ideographic language, reinforcement must come through a visual rather than an auditory stimulus. The 8mm cartridge film is an ideal way to provide this reinforcement of the concepts taught in class.

"The opportunity for practice /both in learning how to use the speech indicator and in learning fingerspelling/ is generally not available in any other form for the student unless he is fortunate enough to have constant contact with persons who are willing to give of their own time to work with the neophyte. Even this situation is far from ideal, since it cannot provide the repetition and consistency that the loop film provides. These films provide the reinforcement that a language lab experience provides for the student of a foreign language."

ORANGE COAST COLLEGE, COSTA MESA, CALIFORNIA

ARTHUR G. EVANS, ASSISTANT PROFESSOR OF PHOTOGRAPHY

### FILM SEQUENCE

Inexpensive 8mm sound film recording, on locally designed and built equipment, of a classroom lecture. The film taken is available later in the school library, providing an opportunity for students to study lectures and demonstrations which they have missed or wish to review.

Professor Evans writes: "The need for a videotape capability at Orange Coast College arose because of the college's use of large group instruction. For a number of years, large group lectures have been sound recorded. Tapes are placed in the college library. Students who enroll late, miss a lecture or wish to review, have the opportunity to do so at listening stations, with earphones. [But since an] increasing amount of visual material was being presented in large group presentations, naturally, the sound tape left something to be desired.

"[Videotape was too expensive ....] The only practical alternative was film. A 16mm single system optical sound was demonstrated ...but...the possibility of 8mm sound film [was also] explored. The problem encountered here was that no one was making equipment adequate to do the job in 8mm.

"It was decided to attempt to develop the necessary capability, and a federal research grant was obtained for this purpose.

"An 8mm motion picture filming system was devised. Various existing components were purchased and modified to meet the needs of 8mm synchronous sound cinematography. [For a report on the technical aspects of the system, see the Journal of the Society of Motion Picture and Television Engineers, Vol. LXXIV, #9 (Sept. 1965) "Double-System 8mm Sound Cinematography in Education".]

"Finished film is kept in the college library. It is usually delivered to the library the day following the lecture.

"Students may check out the film upon presentation of their library card. Two individual playback stations have been located in the library thus far. Each has a Kodak Sound 8 projector, small rear screen and ear-phones....Cartridge projectors are planned for the future.

"Lecture recording is only one example of the utility of this low cost system. Numerous other applications are planned at Orange Coast. These include language study, guest lecturers, video film-chain transmission, home study, field trips, and individual enrichment assignments."

AGNES RUSSELL SCHOOL, TEACHERS COLLEGE, COLUMBIA UNIVERSITY

ROBERT R. GOWER, teacher, Fifth - Sixth Grade

### FILM SEQUENCE

Elementary school pupils, together with their teacher, plan and make an 8mm film about a scientific experiment. The purpose is to increase their learning both about their subject matter and about the medium of film.

The class pictured is a 5th - 6th grade of the Agnes Russell School, a six-grade elementary school at Teachers College, Columbia University. This school makes considerable use of 8mm loop films: most are purchased from commercial distributors. Some have been made by the Project in Educational Communication; and several classes have made their own 8mm films.

Mr. Gower writes, "We had viewed a 16mm film which enabled us to visually follow the step-by-step procedure involved in conducting a scientific experiment. This film served as a springboard to initiate several new activities that involved 8mm equipment. The children discussed making our own film to have a visual aid that would allow a student to review independently, and to be used as a vehicle for discussion periods with other classes, led by the children themselves.

"Some children became involved in the technical aspects of film-making, such as lighting, editing, splicing, etc.; some were interested in assuming the responsibilities for planning and organizing the content of the film; others found fulfillment in playing roles within the film. Movie-making provided many avenues for the imagination and interest of the children.

"After our first experience, we applied what we had learned through trial and error, and made and used additional 8mm films to enrich and supplement our learning experience in social studies and science."

PURDUE UNIVERSITY, LAFAYETTE, INDIANA

S.N. POSTLETHWAIT, PROFESSOR OF BIOLOGY

### FILM SEQUENCE

College students in an independent study session of Purdue's elementary botany course. Each week of laboratory activities is programed on tape; students study and manipulate a variety of materials in a variety of media, including 8mm silent loop films.

Professor Postlethwait writes, "For many subjects, the conditions under which learning takes place best are not provided by the conventional structural organization of courses. In our attempt to adjust for diversity among students, a complete reorganization of a freshman, four-hour credit course in botany has resulted at Purdue University. An important component of the revised course is what we refer to as the audio-tutorial system.

"Three kinds of study session currently are involved in our program. Each week there is one General Assembly Session involving all students, a Small Assembly Session involving thirty or less students, and an Independent Study Session. This is an unscheduled study, done at the convenience of the student, in a learning laboratory. This session involves the student in a great variety of learning events. It is conducted in a special learning laboratory. The student comes in at his convenience and as frequently as he wishes. He studies until he feels he has mastered the subject matter and is free to omit or repeat any part of the study.

"Each booth in the laboratory is equipped with a tape player, appropriate audio tapes, an 8mm film loop projector, a microscope, live specimens, and any other material pertinent to the week's work. In this audio-tutorial system the student is involved in each learning event, in its proper turn, integrated and sequenced by the voice of the senior instructor on tape. Material which is too bulky to be included in the booth is placed on a demonstration table, and the student is requested to use these materials in appropriate sequence.

"In this program 8mm film will be used for subject matter requiring motion and for subject matter best illustrated by single photographs in color. Subject matter requiring motion will include movies of demonstration on 'how to' perform experiments, manipulate equipment, and other directions; films of hard-to-illustrate phenomena such as time-lapse films; films of inaccessible materials or areas; and films which pose questions solvable by data which can be collected from the film. Subject matter requiring photographs in color involved the use of a Technicolor projector with a single frame advance mechanism, and 8mm film strips loaded in an appropriate plastic cartridge. In each case, this adds a new dimension to laboratory teaching and makes available the advantages of photographs in color as a film strip at a time when it will be most effective in a sequence of study events."

TEACHERS COLLEGE, COLUMBIA UNIVERSITY

ERNEST E. HARRIS, PROFESSOR OF MUSIC EDUCATION

### FILM SEQUENCE

8mm sound recording of a student conductor <sup>used</sup> ~~and~~ as a sample of his work discussed in tutorial session with his teacher. The film record is later used by the student to get "feedback" on his progress in the conducting course.

Professor Harris of the Music Department at Teachers College writes, "We use a double system sound and picture operation, which means that the picture is taken with a Bolex camera and the sound is recorded on striped 8mm film with a Kodak Sound 8 projector. Later the sound track is transferred onto the picture film at the proper sound-to-picture separation for the Fairchild Mark IV automatic projector.

"Each student is filmed while he is on the podium actually conducting a live orchestra [of his classmates]. The first half of the filming [of each student] shows the conductor in full view so that the attitude of the entire body and the conducting gestures can be observed and studied. In the second half, ... the camera zooms in to record the upper part of the body showing a close-up of facial expression and arm and hand motions. After the films are developed they are placed in cartridges for each individual student. The cartridge is then placed in the library where projectors are available, and students can spend as much time as desirable in the observation and study of their films.

"The student's first assignment with the film is to study it thoroughly on his own and then prepare an analytical critique on the way in which he sees himself as a conductor. In doing this he is to

make a special point of identifying both the negative and favorable aspects of his conducting. After turning in the written critique, the student schedules a conference with his instructor. The student brings his film cartridge to the instructor's office, where it is analyzed. The instructor points out various problems to which the student should give attention and he offers any special help that may be appropriate. Following the conference with the instructor, the film is placed on a three-inch reel and is given to the student for any further use he chooses to make of it.

"Some students have made as many as three or four different films ... They have connected these films in sequence and are able to observe definite changes and improvements in their conducting habits."

CHURCHILL ROAD SCHOOL, FAIRFAX COUNTY, VIRGINIA

BRUCE L. MILES, DIRECTOR OF TEACHING MATERIALS

### FILM SEQUENCE

In this sequence, an elementary school class uses commercially-produced 8mm sound films to learn French. With the cartridge projector, the language lesson can be used conveniently either by the whole class or by small groups.

In Fairfax County, Virginia, 8mm sound cartridge projectors have been used in some classes of the elementary schools for the presentation of the films; other classes receive the same series of lessons over television. Mrs. Louise Perry, the teacher shown in the film, and her principal, Miss Ruby Dunkum, write the following report:

"The most recent addition to educational communications being used in elementary school classrooms in Fairfax County, Virginia, is the sound 8mm motion picture concept. This is a compact machine combining the projection device and a built-in screen measuring 8 x 10½ inches. The films are packaged in cartridges and are inserted into the machine without threading or rewinding being involved. A listening center consisting of a mixer box with eight headsets can be attached to the projector when the film is to be viewed by an individual or small group. Of course this has the advantage of not disturbing the remainder of the class as the activity is carried out.

"At the present time, there are six such units in use in three of our elementary schools. These are used in the fourth and fifth grades of Churchill Road, Woodlawn, and Woodley Hills Elementary Schools. They are used solely for instruction in "Level I and II" of Parlons Français, a production of the Heath deRochemont Corporation. In all other fourth and fifth grades, television is used to present this material. A comparison of

the effectiveness of the two media is now being made by teachers, principals and supervisors.

"The color film and 8mm cartridge projector has been designed to capture the attention and imagination of the students. Repeated use of the films, small group or at a listening center, and flexibility in scheduling the French period are some of the definite advantages that have been noticed thus far."

GRANT HOUSES DAY CARE CENTER, NEW YORK CITY

MRS. CLAIRE K. LAWRENCE, DIRECTOR.

### FILM SEQUENCE

Five year old children shoot and view 8mm films. They project the films they have made and discuss themselves and their environment; they use films shot by others to gain practice with necessary skills.

The Grant Day Care Center, accommodating children whose parents cannot care for them because of work or illness, is a private institution in the Grant Housing Project on the edge of Harlem in New York City. It is a member of Manhattanville Community Centers, Inc., the bulk of whose funds is provided by the Division of Day Care of the Department of Welfare of the City of New York.

Mrs. Lawrence comments, "Many of our children come from the culturally deprived segment of our population. A positive self-image is crucial if the child is to be motivated now and when he enters school. He must see himself in a positive light -- a child of worth, one with value to himself and others.

"The 8mm film has been of the greatest help to our program in succeeding to establish the child's image. It was exciting and most rewarding to hear quiet, withdrawn children call out when they viewed themselves: 'Look at me!' 'Watch me jump!' 'This is my party...my mommy brought the cake.'

The child also needs to know and explore his environment. With the use of 8mm film, we have been able to focus on the familiar and the not-so-familiar aspects of his surroundings: the beautiful trees, the vast array of colors in our street, the trucks, the cars, the buses, the planes, the trains, the stores, the people. What color is a fire hydrant? A trip to see, a film to remember and refresh his memory: a film that makes

him, his family, his community very important and special."

**STILL PICTURE CREDITS - OPENING MONTAGE**

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**John Swayze**

**Julian C. Townsend**

## **FURTHER ACKNOWLEDGMENTS**

Two other locations were filmed, but technical problems forced their elimination from the present film.

University of California at Los Angeles, Motion Picture Division--then head by Colin Young--of the Department of Theatre Arts: students shoot simple film exercises which are designed early in the elementary production course. 8mm cameras are used to encourage freedom and flexibility in the students' initial approach to the medium.

Teachers College Library, Columbia University, Mrs. Eva Epstein, Supervising Librarian: students check out cartridges from a library of silent film classics and view the films on a cartridge projector, available in the library, for the study of film as art.

Other educational centers actively contributing to the exploratory stages of the film:

Iowa State University, Ames, Iowa  
Stephen Knudsen, Film Production Unit

Michigan State University, East Lansing, Michigan  
James Page, Project Director, Film Clip Project

Milwaukee Public Schools, Milwaukee, Wisconsin  
Robert Suchy, Educational Television Department

Park School, Ossining, New York  
Miss Phyllis Cambre

San Francisco State College, San Francisco 27, California  
Robert A. Weisgerber, Director, Center for Instructional Media

San Jose State College, San Jose 14, California  
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C. Walter Stone, Center for Library and Educational Media